

MODELLING DAIRY FARMING SYSTEMS

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Providing robust analysis of the impact of potential changes on the profitability of dairy farm systems

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INTRODUCTION

The Modelling Dairy Farming Systems project is using a unique combination of bio-physical and economic modelling that provides insights into management approaches that enable dairy farmers to deal with the impacts of climate, policy and technological changes. The project, begun in the northern irrigation region, is now expanding into Gippsland and Western Victoria following demand from industry in those areas.

A key strength of the project is the Regional Stakeholder Steering Committees with farmers, policy makers, consultants and rural counsellors overseeing the team's work. By looking at 10 year risk-based analyses, the model provides information that gives farmers realistic development options.

The Project Team acknowledges the excellent support and direction provided by the Regional Stakeholder Steering Committees.

PROJECT OBJECTIVES

- ◆ **Analyse** the impacts of climate and seasonal variability and labour saving technologies on the profitability of dairy farming systems in Victoria.
- ◆ **Create** strong extension and research links.
- ◆ **Develop** capability in systems analyses.
- ◆ **Examine** the needs of other dairy regions or industries.

HIGHLIGHTS

- ◆ The model has been substantially upgraded to better describe farm systems, in particular, a shift to monthly as opposed to seasonal approach.
- ◆ Final report on the analysis of short and long term once-a-day milking.



- ◆ Draft report on the analysis of 3 systems to automate flood irrigation.

HIGHLIGHTS

- ◆ Drought recovery scenarios are being modelled to forecast the number of years to recover financially (an example of a modelling output is given in Fig 1).

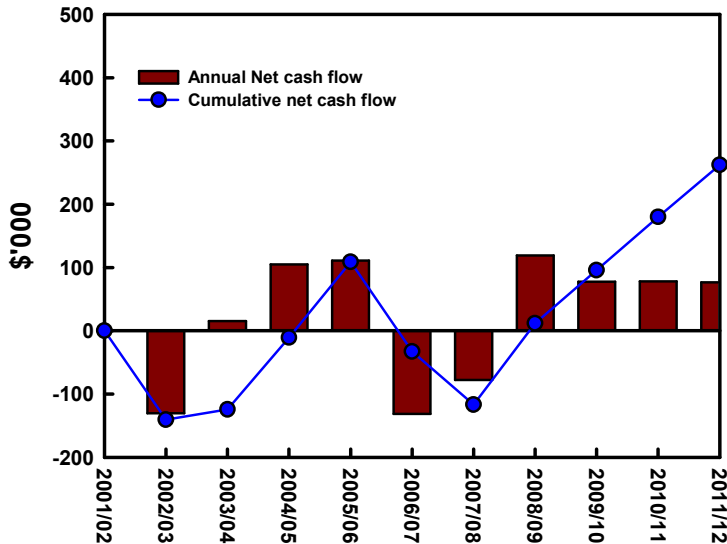


Fig 1: Drought impact and recovery scenario for Goulburn irrigation system farm assuming a reasonable autumn break in 2008.

- ◆ Interviews were conducted for the projects' Systems Modellers (CAS) positions and appointments will be made soon.

- ◆ We welcome GippsDairy to the project following a successful workshop with their farmers.
- ◆ We are currently working with Dairy Australia and WestVic Dairy to prioritise modelling issues relevant to southwest Victoria. A development work shop was conducted in mid December 07.

ACTIVITIES

- ◆ Communication Activities: presentations to over 800 people through conferences, seminars, workshops and discussion groups.
- ◆ Publications: Australian Dairy Farmer magazine article on short and long term once-a-day milking options and a Dairy Australia Press release.
- ◆ Seminars at DPI Kyabram and Ellinbank on short and long-term once-a-day milking options.
- ◆ Scenarios on the impact of the 06/07 drought were delivered to industry and DPI policy groups in July 07.

FURTHER INFORMATION:

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